

Barratt David Wilson

**Land at Forty Acre Farm,
Havant Road, Havant**

Reptile Presence/ Likely Absence Report

April 2018

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Land at Forty Acre Farm, Havant Road, Havant: Reptile Presence/ Likely Absence Survey Report



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Executive Summary

Contents	Summary
Site Location	Land at Forty Acre Farm, is located to the south west of Havant in Hampshire. The central OS grid reference for the land at Forty Acres Farm is SU692057. The site mainly consists of large arable fields with small grassland fields along with dense scrub and planted trees within the field boundaries. An industrial area with buildings and hardstanding is present along the southern extent of the site and improved grassland with clover leys present; c. 22.9 hectares in extent. Directly south of the site is a railway line and beyond this is the A27 and Langstone Harbour, a designated as a RAMSAR Site, Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). Solent and Isle of Wight Lagoons a Special Area of Conservation (SAC) lies 280m south. The Solent Maritime (SAC) lies 180m south of the site. South west of the site lies Farlington Marshes, a designated Local Nature Reserve (LNR). Directly west of the site are residential dwellings and East Lodge Farm along with East Lodge Playing Field. To the north of the site lies the A2030 Havant Road and beyond this lies further residential areas and an arable field. North east of the site is a major junction of the A3 with the A3 slip road extending south along the eastern boundary of the site. The western extent of the site has been designated as a Site of Importance for Nature Conservation (SINC), known as Forty Acres Farm B, due to the presence of dark-bellied brent goose (<i>Branta bernicla bernicla</i>).
Previous Reports / Surveys	An extended Phase 1 habitat survey was conducted in February 2016 which identified suitable reptile habitat around the peripheries of the site and recommended that a suite of reptile presence / likely absence survey should be completed.
This Survey(s)	WYG were commissioned to undertake a suite of reptile presence / likely absence surveys at the site were completed between 3 rd June and 1 st July 2016.
Results	Over the suite of seven reptile surveys, a peak count of 17 slow worms were recorded utilising the peripheries of the site. Adult and juvenile individuals were recorded, indicating a good population that is breeding on site.
Recommendations	Reptiles are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended). The peripheries of the site are considered to offer suitable habitat to reptiles. The following approach is recommended: Avoidance - The site boundaries will be largely retained. - It is not considered that reptiles are present in the arable fields and the mown/grazed grass habitats of the site as these provide sub optimal conditions for reptiles. Mitigation - Displacement of reptiles under supervision of an Ecological Clerk of Works along tree lines that will be removed as part of the development. This will involve strimming the grassland to 15cm; subsequently an ECoW will complete a finger tip search for any reptiles. If any reptiles are found these will be placed along the site boundaries of the site, along the northern, southern, eastern and western extent. - Subsequently, a destructive search will be undertaken of the linear boundaries to ensure no reptiles are present. Enhancements The southern extent of the site will be enhanced as open space and grass will be left to grow longer to provide habitat for reptiles as well as wintering birds. The results of this survey remain valid for two years (i.e. until July 2018), if works have not commenced by this time a review of site conditions should be completed to determine whether an update survey is required. If any reptiles are encountered onsite during works, all work should cease and a suitably qualified ecologist should be contacted for advice.



1.0 Introduction

1.1 Background

WYG was commissioned by Barratt David Wilson in February 2016 to undertake a suite of reptile presence/ likely absence surveys at Land at Forty Acre Farm, Havant Road, Havant (hereafter referred to as 'the site'), with the aim of determining the presence or likely absence of reptiles within the site boundary.

This report follows recommendations made in the extended Phase 1 habitat survey completed by WYG in February 2016, when the habitats present on the site were assessed as having low potential for reptiles. The report will identify potential ecological constraints to development as well as make migration recommendations.

1.2 Site Location

The site covers approximately 22.9 hectares, located to the south west of Havant in Hampshire, centred on Ordnance Survey grid reference SU692057. Directly south of the site is a railway line and beyond this is the A27 and Langstone Harbour, a designated RAMSAR Site, Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). A portion of the Solent and Isle of Wight Lagoons Special Area of Conservation (SAC) lies 280m south of the site and the Solent Maritime SAC lies 180m south of the site. South west of the site lies Farlington Marshes, a designated Local Nature Reserve (LNR). Directly west of the site lies the residential area of Farlington along with East Lodge Farm and East Lodge Playing Field. To the north of the site lies the A2030 Havant Road beyond which lie further residential areas along with arable fields. North east of the site is a major junction of the A3 with the A3 slip road extending south along the eastern boundary of the site. The western extent of the site has been designated as a Site of Importance for Nature Conservation (SINC), known as Forty Acres Farm B, due to the presence of dark-bellied brent geese (*Branta bernicla bernicla*).

1.3 Proposed Development

The proposed development is for 320 dwellings (including a 30% provision of affordable homes), 66 bed care home, provision of public open space, habitat mitigation zone, allotments, community building and associated infrastructure.



1.4 Survey & Reporting Objectives

The preliminary ecological appraisal carried out by WYG identified the potential for reptiles to occur on site. The aims of the survey work and the subsequent report presented herein were to:

- Determine the presence or likely absence of reptiles at the site;
- Determine the population size class of reptiles if confirmed to be present;
- Provide an appraisal of the implications created by the potential presence of reptiles at the site;
- Establish if any potential effects on reptiles resulting from the development are permissible;
- Ensure that the required level of survey work and information is present to inform a method statement, should one be necessary; and
- Provide preliminary advice on mitigation strategies against any adverse affects on local reptile population(s) which may arise as a result of the proposed development.



2.0 Legislation

2.1 Legislation

All six species of reptiles native to the UK are protected under the Wildlife and Countryside Act 1981 (as amended) and benefit from various levels of protection. The adder (*Vipera berus*), grass snake (*Natrix natrix*), slow-worm (*Anguis fragilis*) and common lizard (*Zootoca vivipara*) receive partial or full protection under Section 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to:

- Intentionally or recklessly kill or injure these animals; and
- Sell, offer for sale, possess or transport for the purpose of sale or publish advertisement to buy or sell individual reptiles.

The smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) are listed in Annex IVa of the EC Habitat and Species Directive and in Annex II of the Bern Convention. They are also listed in Schedule 5 of Section 9 of the Wildlife and Countryside Act 1981 (as amended) and in Schedule 2 of the Conservation of Habitats and Species Regulations 2017. As a result it is an offence to:

- Intentionally or recklessly kill or injure these animals;
- Deliberately disturb these animals;
- Take or destroy their eggs;
- Damage, destroy or disturb or impede access to breeding or shelter sites used by these species; and
- Sell, offer for sale, possess or transport for the purpose of sale or publish advertisement to buy or sell individual reptiles.



3.0 Methodology

3.1 Desk Based Study

Site and species specific data was sourced through direct consultation with the Hampshire Biodiversity Information Centre (HBIC). The area of search was taken as 2 km (from the centre of the site). This provided the overall ecological context for the site and surrounding areas and potential basis for the reptile survey.

3.1.1 Previous Reports

An extended Phase 1 survey was carried out by WYG in 2016 at the site which identified habitats suitable for reptiles.

3.1.2 Online Resources

A search for designations was made using the Multi Agency Geographic Information for the Countryside database (MAGIC).

3.2 Field Surveys

3.2.1 Reptile Presence/ Likely Absence Survey Methodology

The extended phase 1 survey identified areas of unmanaged grassland and scrub margins with potential for reptiles to shelter and forage. Scattered trees with areas of scrub and tall ruderal vegetation within the site also offer potential sheltering and foraging habitat for reptiles whilst bare ground in places provides open habitats for reptiles to bask. The site peripheries also provide some connectivity to suitable reptile habitat off-site.

In accordance with the guidance outlined in the *Herpetofauna Workers' Manual* (Joint Nature Conservation Committee - JNCC, 2003), *Advice Sheet 10 – Reptile Survey* (Froglife, 1999) surveys were undertaken to establish the presence or likely absence of reptile species. This involved seven visits completed between 3rd June and 1st July 2016 in suitable weather conditions.

90 clearly numbered artificial refuges (0.5m x 0.5m sections of bitumen roofing felt) were placed across the site on 20th May 2016 in areas which were considered to offer habitat suitable for reptiles (refer to Figure 1). The mats were placed in the areas adjacent to tree lines, and in areas of longer grass, scrub and bare ground around the site boundaries and peripheral habitats of the site. As such these were placed at a density of approximately 10 mats per hectare of suitable habitat across the



site, as per recommended by the guidelines (JNCC, 2003). The refuges were then left undisturbed on the site for two weeks prior to survey; to allow for reptiles on the site to find and utilize. Each refuge was then first checked for basking individuals from a distance before being slowly approached and searched for sheltering reptiles. The location of each reptile sighting was then recorded to allow for analysis of population distributions across the site.

The optimal time to survey reptiles is between 8:30am to 11:00am and between 16:00pm and 18:30pm and when air temperature is between 9°C and 18°C. Strong rain and wind are deemed unsuitable (Froglife, 1999). As reptile activity is heavily dependent on weather conditions the following conditions were recorded during each survey: air temperature, wind levels, rain levels, and the cloud cover.

3.2.2 Survey Limitations

All surveys were completed in optimal conditions and there are no limitations on the results of this survey.

The results of this survey remain valid for two years (i.e. until July 2018), if works have not commenced by this time a review of site conditions should be completed to determine whether an update survey is required.



4.0 Results

4.1 Local Records Centre

Records are used to inform field surveys regarding the possible presence of a species in a particular area at an early stage of the investigation. The existence of records indicates that a particular species has at least been present; however, absence of records or low incidence of records cannot be interpreted as a species' absence.

HBIC provided information in relation to the presence of reptiles recorded as individual records, e.g. sightings and evidence, as well as records included in descriptions of designated sites and areas of particular regional, national or international importance.

HBIC returned 23 records of slow worm (*Anguis fragilis*). The majority of records were made in Hamble-le-rice, on a small strip of grassland adjacent to the A27 approximately 0.2km south of the nearest site boundary. HBIC also returned six records of common lizard (*Zootoca vivipara*), the closest of which was recorded in Farlington Marshes, and located 0.88km south-west of the nearest site boundary.

4.2 Site survey

4.2.1 Weather Conditions

Table 1: Survey Weather Conditions

Survey	Date	Time	Air Temperature (°C)	Rain	Wind Speed	Cloud Cover (%)
1	03.06.2016	AM	12.6	None	2	100
2	09.06.2016	AM	15.8	None	2	10
3	13.06.2016	AM	16.0	None	2	100
4	17.06.2016	AM	17.6	None	2	70
5	20.06.2016	PM	16.4	None	2	100
6	27.06.2016	AM	17.5	None	1	40
7	01.07.2016	PM	17.2	None	4	80



4.2.2 Survey Results

Table 2. Site survey results

Survey	Date	Records			Mat No.	Additional Notes
		Species	Adult	Juvenile		
1	03/06/2016	Slow worm	-	1 IM +IF	37	Resting
		Slow worm	-	1 IM +IF	36	Resting
		Slow worm	-	1 IM	59	Resting
		Slow worm	1 AF	-	59	Resting
2	09/06/2016	Slow worm	1 AF + 1AM	1 IF	36	Resting
		Slow worm	1 AF	-	25	Resting
		Slow worm	1AF	-	79	Active
		Slow worm	1 AM	-	58	Active
		Slow worm	1AM	-	72	Active
		Slow worm	1AF	-	56	Resting
3	13/06/2016	Slow worm	1AM	-	2	Resting
		Slow worm	1AM	-	39	Resting
		Slow worm	1AF+ 1AM	-	37	Resting
		Slow worm	1AF	-	36	Resting
		Slow worm	1 AM	-	35	Resting
		Slow worm	1 AF	-	25	Resting
		Slow worm	1 AM	-	68	Resting
		Slow worm	1 AM + 1 AF	1 IF	59	Resting
		Slow worm	1 AM	-	53	Resting
4	17/06/2016	Slow worm	1AM	-	2	Resting
		Slow worm	1AF	-	40	Resting
		Slow worm	1 AF	-	38	Resting
		Slow worm	2AF + 1AM	-	36	-
		Slow worm	1AF	-	35	Resting

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		Slow worm	2AF + 1AM	-	30	Resting
		Slow worm	1AF	-	63	Resting
		Slow worm	1AF		59	Resting
5	20/06/2016	Slow worm	1AM	-	2	Resting
		Slow worm	1AM	-	5	Resting
		Slow worm	1AF	-	25	Resting
		Slow worm	1AF+ 1AM	-	30	Resting
		Slow worm	1AF	-	35	Resting
		Slow worm	1 AM+ 1AF	-	36	Resting
		Slow worm	1AF	-	38	Resting
		Slow worm	1 AF	-	40	Resting
		Slow worm	1 AM	-	58	Resting
		Slow worm	2 AF	-	60	Resting
6	27/06/16	Slow worm	1AM	-	5	Resting
		Slow worm	1AF/1 AM	-	19	Resting
		Slow worm	1AF	-	21	Resting
		Slow worm	1AF	-	25	Resting
		Slow worm	1AF/ 1AM	-	30	Resting
		Slow worm	1AF/ 1 AM	-	35	Resting
		Slow worm	1AF/ 1 AM	-	36	Resting
		Slow worm	1AF	-	38	Resting
		Slow worm	1AF	-	40	Resting
		Slow worm	1AM	-	53	Resting
		Slow worm	1AM	-	58	Resting
		Slow worm	2AF	-	60	Resting
7	01/07/2016	Slow worm	1AM	-	79	Resting

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		Slow worm	1AM	-	74	Resting
		Slow worm	1AM	-	64	Resting

Key:

AF: Adult Female

AM: Adult Male

IF: Immature female

IM: Immature male



5.0 Constraints and Opportunities

5.1 Summary of Findings

Adult and juvenile slow worms were recorded during the reptile presence/ likely absence surveys. Slow worms were recorded on all seven survey occasions, with a maximum of 17 adults recorded on 27th June 2016. A breeding population was also confirmed as juvenile slow worms were also recorded during four of the seven survey visits. The slow worms were identified within the peripheries of the site, along the grassland scrub site boundaries and within the tree lines bordering the fields of the site. The fields themselves are maintained short grass and/ or comprising arable crops and are not considered suitable for reptiles.

Analysis of the results follows the guidelines set out in the Froglife (1999) document and in Table 3 below. This enables a broad assessment of the size of the reptile population at the Westways, Havant.

Table 3: Reptile Population Estimate

SPECIES	Low population Score 1	Good population Score 2	Exceptional population Score 3
Adder	< 5	5 - 10	> 10
Grass snake	< 5	5 - 10	> 10
Common Lizard	< 5	5 - 20	> 20
Slow worm	< 5	5 - 20	> 20

NB. Figures in the table refer to maximum number of adults seen by observation and/or under tins/mats, placed at a density of 10 per hectare, by one person in one day.

Froglife guidelines (1999) (Table 3 above) suggests that at present the site has a 'good' population of slow worms. As these species are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended), mitigation will be required prior to construction commencing to protect reptiles.

5.2 Reptile Displacement

As reptiles were only found within the site boundaries and field boundaries displacement of reptiles in all field boundaries to be impacted by the development towards the retained site boundaries is considered the best option. **Reptile displacement can only be undertaken during the animals' active period which runs from mid-March until mid-October and in suitable weather**



conditions. Reptile capture may not take place between November and February, as reptiles are not active during this period. Once the displacement is complete, heras fencing will be erected around areas of suitable habitat (i.e the site boundaries) to protect and maintain the retained habitat against encroachment from the on-site construction works.

The displacement exercise will occur in two stages; habitat manipulation followed by a destructive search. An Ecological Clerk of Works will supervise the habitat manipulation which will involve cutting/trimming of the vegetation to 150mm, following which a finger tip search will be undertaken to check for reptiles. If any reptiles are found they will be translocated to the grassland boundaries surrounding the site. Following this, the clearance of this area will be finalised by a destructive search.

5.3 Destructive Search

Following the successful completion of the displacement of reptiles from the areas of proposed construction to the site boundaries, these areas will be destructively cleared. This will involve two parts, hand search and a mechanical search, completed to the following specifications:

- A suitably qualified ecologist will supervise all aspects of the destructive search;
- Hand searches will be conducted, including the removal of debris on the ground in order to remove potential refuges including rubble, wood piles and vegetation piles;
- Using a medium sized excavator (approximately 8-10 tonnes) with a toothed bucket carry out a gradual scrape of the top one to two inches (25-50mm) of top soil;
- Both the areas from where soil is removed and the subsequent spoil heaps should be checked for reptiles and amphibians;
- Carry out deeper scrapes where necessary, such as beneath rot systems, buried material, cracks or holes in the ground;
- The excavated spoil will be stored as directed by the ECoW, in consultation with the developers, in an area identified as unsuitable as reptile habitat.

5.4 Habitat Management

Only the site boundaries will be retained long and suitable for reptiles following the reptile displacement exercise. Following these works it is recommended that all other areas of grassland are regularly managed to maintain a short height unsuitable for reptiles. This will prevent future



establishment of a reptile population in these areas and thus avoid potential impacts during the construction phase of the development.

Tree group 7 will be removed to make the brent goose mitigation area more open. This must be done under ecological supervision to ensure no reptiles or other protected species are harmed during the removal process.

Grassland margins around the edge of the brent goose mitigation area will be planted with a species rich grass mixture to enhance suitability for other wildlife including such as reptiles and invertebrates. The field will always remain open in nature with clear, open sight lines maintained. Grassland verges surrounding the brent goose mitigation area must therefore be cut annually in September, to avoid the nesting bird season.

The proposed development includes a large area of open space designed for dog walkers, residents of the development and visitors. The open space will include a range of habitats suitable for reptiles including grassland, scrub, woodland and wetland (in the form of ponds, SuDS basins and scrapes). Around the edge of the wetland areas, grass will be allowed to grow longer creating refuge points for reptiles and other protected species. This will result in a significant increase in the total area of suitable reptile habitat post development, with connectivity to the north and south of the residential development maintained through the east and west boundaries.



6.0 References

Eds. Hill, D.A., Fasham, M., Tucker, G., Shewry, M. & Shaw, P. (2005). *Handbook of Survey Methods: Survey, Evaluation and Monitoring*. Cambridge University Press, UK.

Froglife, (1999). Advice Sheet 10: Reptile Survey.

Gent, T. & Gibson, S., (2003). *Herpetofauna Workers' Manual*. JNCC.

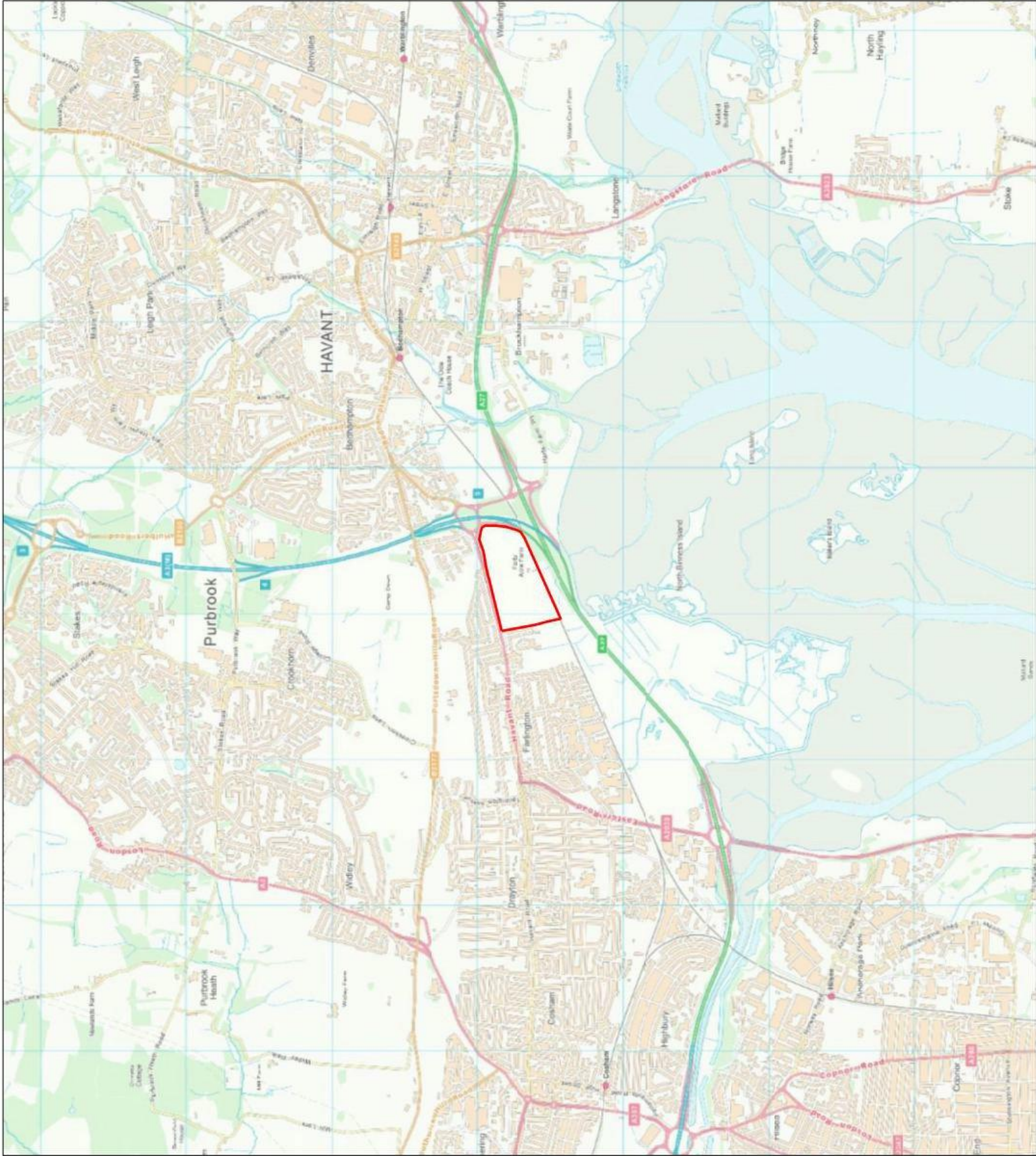
WYG (2016). Extended Phase 1 Habitat Survey. Westways, Havant.



FIGURES

Figure 1 – Site Location Plan

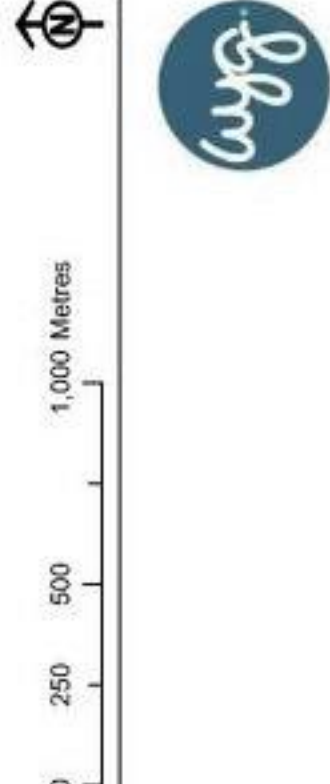
Figure 2 – Reptile Mat Location Plan



Rev	Date	Notes
A	27/04/18	Initial map production

Legend

— Site boundary



Site Location Plan

**Land at Forty Acre Farm
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Scale at A3:	Project No:	Drawing No:	Revision:
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Drawn by:	Drawn date:	Approved by:	
Ben Blowers	27/04/2018	David West	

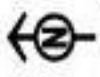
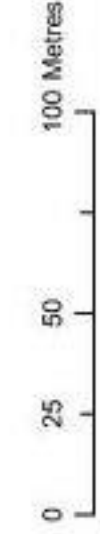
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Rev	Date	Notes
A	27/04/18	Initial map production

Legend

- Site boundary
- Reptile mat



Reptile Mat Location Plan

**Land at Forty Acre Farm
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Scale at A3:	Project No:	Drawing No:	Revision:
1:2,500	A095024	Figure 2	A
Drawn by:	Drawn date:	Approved by:	
Ben Blowers	27/04/2018	David West	

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